

**PRELIMINARY AMENDMENT**

Serial Number: 09/132,157

Filing Date: August 11, 1998

Title: SILICON-GERMANIUM DEVICES FOR CMOS FORMED BY ION IMPLANTATION AND SOLID PHASE EPITAXIAL REGROWTH

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**REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed February 2, 2000, and the references cited therewith.

Claims 11, 24, 25, 28, 30, 38, 40 and 41 are amended herein. Claims 12 and 29 are canceled hereby without prejudice or disclaimer. Claims 11, 13, 14, 24-28, 30-32 and 38-43 are now pending.

Applicants respectfully request reconsideration of the above-identified patent application as amended in view of the following remarks.

*Rejections Under 35 U.S.C. § 103*

Claims 11, 12, 24, 25, 30 and 32

Claims 11, 12, 24, 25, 30 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aronowitz et al. (U.S. Patent No. 5,296,386) together with Grider et al. (U.S. Patent No. 5,818,100). Claim 12 is canceled hereby without prejudice or disclaimer.

Claims 11, 24 and 25 are amended to recite, in part, "wherein the Si<sub>1-x</sub>Ge<sub>x</sub> channel region is formed subsequent to formation of the gate oxide." Claim 30 is amended to recite, in part, "wherein the silicon-germanium alloy is formed subsequent to formation of the gate oxide." Applicant contends that the silicon-germanium alloy of Aronowitz et al. is not formed subsequent to formation of the gate oxide. Applicant further contends that Grider et al. does not overcome this deficiency of the primary reference. Accordingly, Applicant respectfully submits that claims 11, 24, 25, and 30 are patentably distinct from the cited references, either alone or in combination. Claim 12 has been deleted. As claim 32 depends from and further defines patentably distinct claim 30, these claims are also believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the above 35 U.S.C. § 103(a) rejection.

Claims 13, 26, 27 and 31

Claims 13, 26, 27 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aronowitz et al. (U.S. Patent No. 5,296,386) together with Grider et al. (U.S. Patent No.

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5,818,100) and Crabbe et al (U.S. Patent No. 5,821,577). Claim 13 depends from and further defines patentably distinct claim 11, claims 26 and 27 depend from and further define patentably distinct claim 24, and claim 31 depends from and further defines patentably distinct claim 30. The Crabbe et al. reference fails to overcome the deficiencies of the Aronowitz et al. and Grider et al. references as noted above. Accordingly, Applicant respectfully submits that claims 13, 26, 27 and 31 are patentably distinct from the cited references, either alone or in combination. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the above 35 U.S.C. § 103(a) rejection.

Claims 11, 14, 24, 25, 28, 30 and 32

Claims 11, 14, 24, 25, 28, 30 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Selvakumar et al. (U.S. Patent No. 5,426,069) together with Grider et al. (U.S. Patent No. 5,818,100). Applicant has amended independent claims 11, 24, 25, 28, and 30, to specifically recite "a p-channel metal-oxide semiconductor transistor." Applicant has included herewith an Affidavit from the inventor, Dr. Leonard Forbes, which supports the assertion that the methods described in Selvakumar reference will not work with a p-channel metal-oxide semiconductor transistor structure. Thus, there is no likelihood of operational success for the structure described in the Selvakumar when applied to a p-channel metal-oxide semiconductor transistor structure as claimed by the Applicant. The affidavit further includes rationale for obviating the Aronowitz and Grider references. Consideration of this affidavit is respectfully requested. Further, as noted above, the Crabbe et al. reference fails to overcome the deficiencies of the Aronowitz et al. and Grider et al. For the reasons and support presented above and herewith, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection for the above cited claims.

Claims 13, 26, 27 and 31

Claims 13, 26, 27 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Selvakumar et al. (U.S. Patent No. 5,426,069) together with Grider et al. (U.S. Patent No. 5,818,100) and Crabbe et al (U.S. Patent No. 5,821,577). Claim 13 depends from and further

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defines patentably distinct claim 11, claims 26 and 27 depend from and further define patentably distinct claim 24, and claim 31 depends from and further defines patentably distinct claim 30.

The Crabbe et al. reference fails to overcome the deficiencies of the Aronowitz et al. and Grider et al. references as noted above. Accordingly, Applicant respectfully submits that claims 13, 26, 27 and 31 are patentably distinct from the cited references, either alone or in combination.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the above 35 U.S.C. § 103(a) rejection.

Claim 29

Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Selvakumar et al. (U.S. Patent No. 5,426,069) together with Grider et al. (U.S. Patent No. 5,818,100) and Aronowitz et al. (U.S. Patent No. 5,296,386). Claim 29 depends from and further defines patentably distinct claim 28. For the reasons presented above, Applicant respectfully requests reconsideration and withdrawal of the above 35 U.S.C. § 103(a) rejection.

Claims 38, 40 and 41

Claims 38, 40 and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Selvakumar et al. (U.S. Patent No. 5,426,069) together with Grider et al. (U.S. Patent No. 5,818,100). Applicant has amended independent claims 38, 40, and 41, to specifically recite "a p-channel metal-oxide semiconductor transistor." Applicant has included herewith an Affidavit from the inventor, Dr. Leonard Forbes, which supports the assertion that the methods described in Selvakumar reference will not work with a p-channel metal-oxide semiconductor transistor structure. Thus, there is no likelihood of operational success for the structure described in the Selvakumar when applied to a p-channel metal-oxide semiconductor transistor structure as claimed by the Applicant. The affidavit further includes rationale for obviating the Grider reference. Consideration of this affidavit is respectfully requested. For the reasons and support presented above and herewith, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection for the above cited claims.

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Claims 39, 42 and 43

Claims 39, 42 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Selvakumar et al. (U.S. Patent No. 5,426,069) together with Grider et al. (U.S. Patent No. 5,818,100) and Crabbe et al (U.S. Patent No. 5,821,577). Claim 39 depends from and further defines patentably distinct claim 38, claims 42 and 43 depend from and further define patentably distinct claim 41. The Crabbe et al. reference fails to overcome the deficiencies of the Selvakumar et al. and Grider et al. references as noted above. Accordingly, Applicant respectfully submits that claims 39, 42 and 43 are patentably distinct from the cited references, either alone or in combination. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the above 35 U.S.C. § 103(a) rejection.

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**Conclusion**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6913 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

LEONARD FORBES

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By

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Signature